

IN THE ABSTRACT

Please delete the current Abstract in its entirety and substitute therefore the following New Abstract:

NEW ABSTRACT

A device having a plurality of fluid channels for generating independent fluid samples for multichannel analysis. Fluids are transported in the fluid channels. A cross-over channel has a fluid inlet and a fluid outlet. The sample channels are filled with sample fluid up to a threshold. A flush fluid (gas or inert liquid) is then flushed through the sample-filled cross-over channel, replacing the sample fluid with flush fluid. Subsequently the cross-over channels' inlet and outlet are closed and the sample fluid is pushed further into the channel arrays. Alternatively, an appropriate pressure is applied to the fluid in order to push the fluid. The steps are repeated in an appropriate way if it is desired to obtain multiple (in time and/or space) independent sample plugs in the microchannels. Thus a series of longitudinally spaced independent sample fluid segments separated from each other by flush segments is created in each microchannel.